

# **CMS architecture... and CMS Top 5 issues**

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# US CMS Tier-1

- **LHC Resources at Fermilab**

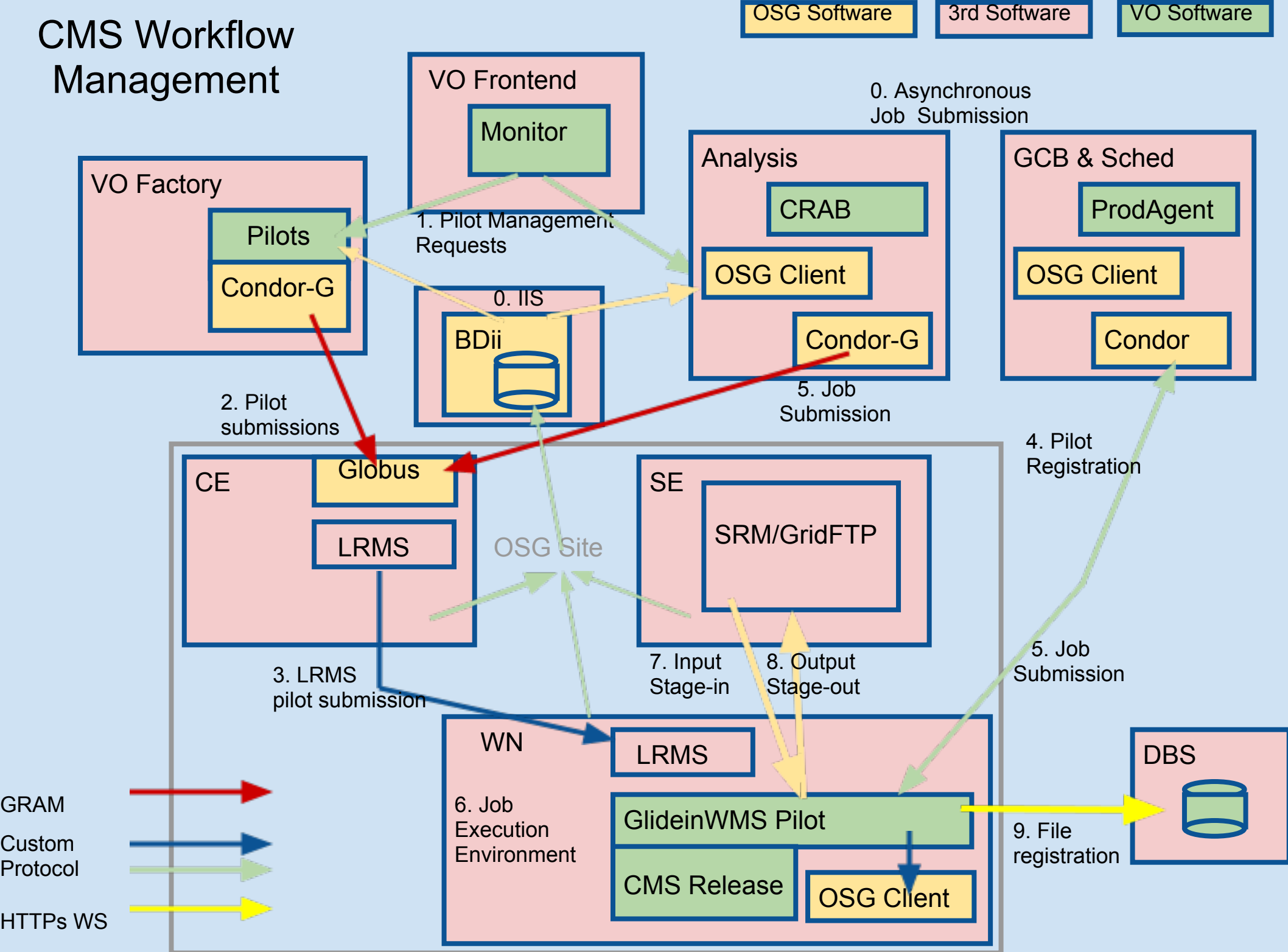
- LPC: [http://www.uscms.org/uscms\\_at\\_work/physics/lpc/index.shtml](http://www.uscms.org/uscms_at_work/physics/lpc/index.shtml)
- ROC: <http://www.uscms.org/roc/>
- CMS Center: <http://cms.fnal.gov/index.shtml>

- **Data and Computing Facilities (CMS Tier-1):**

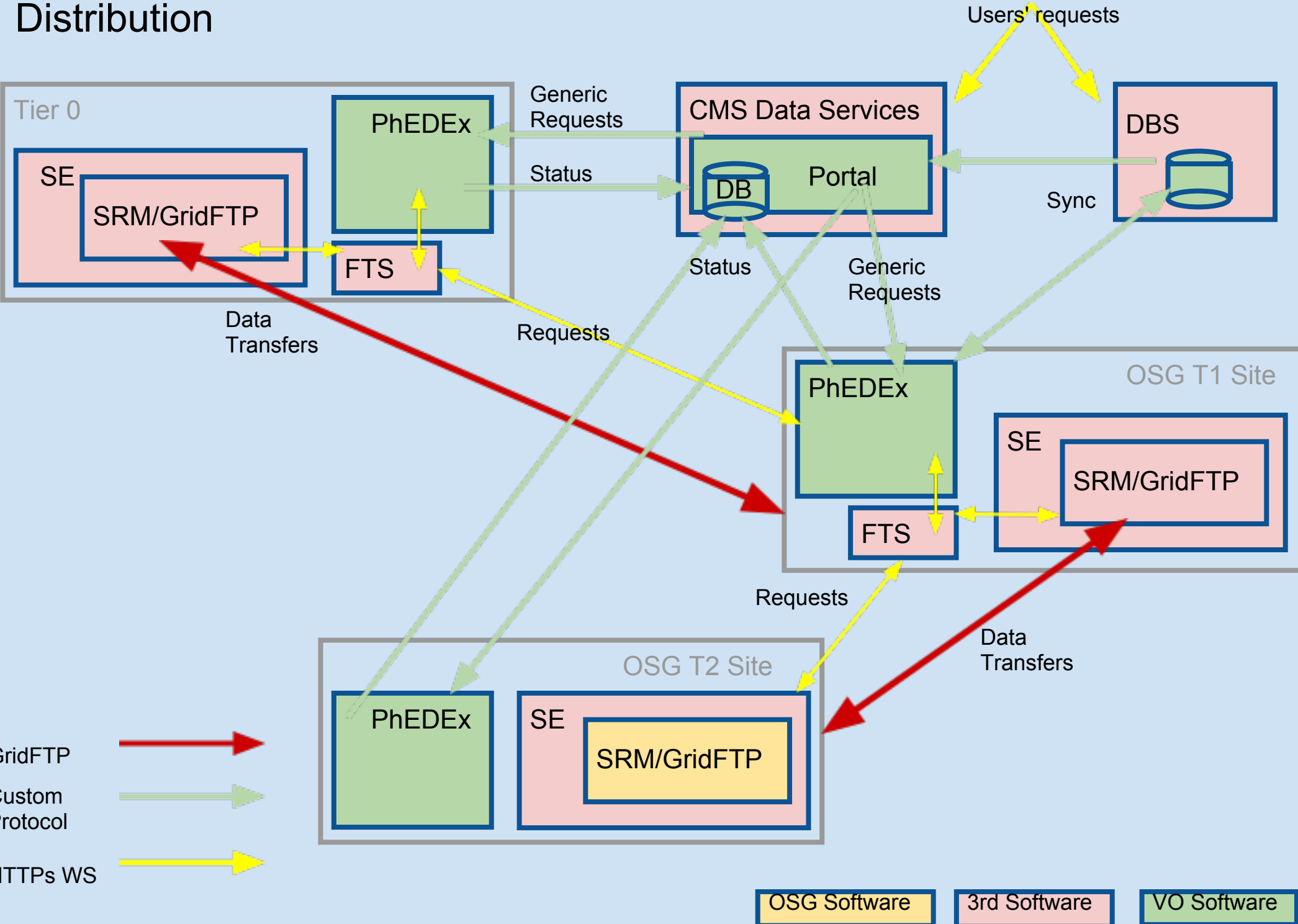
[http://www.uscms.org/uscms\\_at\\_work/data\\_computing/index.shtml](http://www.uscms.org/uscms_at_work/data_computing/index.shtml)

- **Main WebPage: <http://www.uscms.org/>**

# CMS Workflow Management



# CMS Data Distribution



# Technical Issues

- Condor limitations due to the scale - optimized network paths, UDP vs. TCP, race conditions
- CE or SAZ overload during various times (lost connectivity, bulk requests)
- Authentication failures due to GUMS servers

# Technical Issues - continued

- dCache partial interoperability with other storage systems (both ways)
- CRL management problems
  - download failures
  - out of service nodes and missing startup update
  - cron job frequency too low